

Docket No.: PC-0028 US

1. (Twice Amended) An isolated mammalian cDNA, or the complement thereof, comprising a sequence encoding a mammalian protein selected from:
 - a) an amino acid sequence of SEQ ID NO:1;
 - b) a naturally occurring variant having at least 90% amino acid sequence identity to the amino acid sequence of SEQ ID NO:1; and
 - c) an antigenic epitope of SEQ ID NO:1.
2. (As Once Amended) An isolated mammalian cDNA encoding a mammalian protein of SEQ ID NO:1.
3. (Thrice Amended) An isolated mammalian cDNA or the complement thereof comprising a sequence selected from:
 - a) a nucleic acid sequence of SEQ ID NO:3;
 - b) a fragment of SEQ ID NO:3 from about nucleotide 170 to about nucleotide 220, from about nucleotide 1015 to about nucleotide 1055, or from nucleotide 1500 to 1550 of SEQ ID NO:3; and
 - c) a naturally occurring variant of SEQ ID NO:3 having at least 90% sequence identity to the nucleic acid sequence of SEQ ID NO:3.
4. (As Once Amended) A composition comprising the cDNA or the complement of the cDNA of claim 1.
6. A probe comprising the cDNA or the complement of the cDNA of claim 1.
7. A vector comprising the cDNA of claim 1.
8. A host cell comprising the vector of claim 7.
9. A method for producing a protein, the method comprising:
 - a) culturing the host cell of claim 8 under conditions for protein expression; and
 - b) recovering the protein from the host cell culture.
10. A transgenic cell line or organism comprising the vector of claim 7.
11. A method for using a cDNA to detect the differential expression of a nucleic acid in a sample comprising:
 - a) hybridizing the probe of claim 6 to the nucleic acids, thereby forming hybridization complexes; and

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b) comparing hybridization complex formation with a standard, wherein the comparison indicates the differential expression of the cDNA in the sample.

12. The method of claim 11 further comprising amplifying the nucleic acids of the sample prior to hybridization.

13. The method of claim 11 wherein detection of differential expression of the cDNA is diagnostic of colon disorders, particularly colon cancer, Crohn's disease, and ulcerative colitis.

14. A method of using a cDNA to screen a plurality of molecules or compounds, the method comprising:

a) combining the cDNA of claim 1 with a plurality of molecules or compounds under conditions to allow specific binding; and

b) detecting specific binding, thereby identifying a molecule or compound which specifically binds the cDNA.

15. The method of claim 14 wherein the molecules or compounds are selected from DNA molecules, RNA molecules, peptide nucleic acids, artificial chromosome constructions, peptides, transcription factors, repressors, and regulatory molecules.

16. A purified mammalian protein or a portion thereof selected from:

- a) an amino acid sequence of SEQ ID NO:1 and SEQ ID NO:2;
- b) a variant having at least 80% identity to the amino acid sequence of SEQ ID NO:1 or SEQ ID NO:2;

c) an antigenic epitope of SEQ ID NO:1 or SEQ ID NO:2;

d) an oligopeptide of SEQ ID NO:1 or SEQ ID NO:2; and

e) a biologically active portion of SEQ ID NO:1 or SEQ ID NO:2.

A composition comprising the protein of claim 16

18 A method for using a protein to screen a plurality of molecules or compounds

18. A method for using a problem to teach a primary skill.

a) combining the protein of claim 16 with the molecules or compounds under conditions

allow specific binding, and

b) detecting specific

protein

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19. The method of claim 18 wherein the molecules or compounds are selected from DNA molecules, RNA molecules, peptide nucleic acids, peptides, proteins, mimetics, agonists, antagonists, antibodies, immunoglobulins, inhibitors, and drugs.

20. A method of using a mammalian protein to prepare and purify antibodies comprising:

- a) immunizing an animal with the protein of claim 16 under conditions to elicit an antibody response;
- b) isolating animal antibodies;
- c) attaching the protein to a substrate;
- d) contacting the substrate with isolated antibodies under conditions to allow specific binding to the protein;
- e) dissociating the antibodies from the protein, thereby obtaining purified antibodies.

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